



Region 10
1200 Sixth Avenue
Seattle WA 98101

Alaska
Idaho
Oregon
Washington

July 29, 1996

PROPOSED PLAN

Monsanto Elemental Phosphorus Plant Caribou County, Idaho

PUBLIC COMMENT PERIOD

The U.S. Environmental Protection Agency (EPA) is seeking comments on a proposed cleanup plan for the Monsanto Chemical (Soda Springs) site. The proposed plan calls for land and ground water use restrictions to prevent residential exposure to contaminated soils and ground water near the elemental phosphorus plant. Comments must be submitted by August 30, 1996 to be considered in the final decision. Send your written comments to:

Tim Brincefield, Project Manager
US EPA Region 10
1200 Sixth Avenue
Seattle, Washington 98101

PUBLIC MEETING

EPA has scheduled a public meeting to discuss all of the cleanup alternatives considered and to accept oral and written comments.

Date: August 13, 1996

Time: 7:00 pm

**Place: Soda Springs High School
300 East, 100 North
Soda Springs, Idaho**

FOR MORE INFORMATION

This Proposed Plan identifies the alternatives considered and the EPA's recommendation for action at the Monsanto Chemical site. The EPA encourages public input during this comment period to ensure that the selected plan meets Superfund statutory requirements and addresses community concerns.

Detailed reports and other pertinent documents are available in the Information Repository at the Soda Springs Library (see page 17). These include the Remedial Investigation (RI), which documents the nature and extent of contamination at the site, and the Feasibility Study (FS), which evaluated alternatives to address risks posed by the site. These documents should be consulted for more details.

Public input on the alternatives and the information that supports them is an important contribution to the remedy selection process. Based on new information or public comment, EPA may modify the recommended alternative or select another alternative presented in this plan and/or the FS Report. The public is encouraged to review and comment on all technologies and alternatives considered for the Monsanto site.

The State of Idaho's Department of Health and Welfare (IDHW) has worked with both EPA and Monsanto to oversee this process.



AR 2.7 (42048)

BACKGROUND

The Monsanto Chemical site is located in southeastern Idaho, in Caribou County, approximately one mile north of the City of Soda Springs (see Figure 1). The City of Soda Springs has a population of approximately 3,000.

The Monsanto industrial facility occupies approximately 540 acres and includes an elemental phosphorus plant where phosphate ore is processed by a technology utilizing electric-arc furnaces. The resulting elemental phosphorus is shipped off site, and is used for the production of many phosphorus and phosphate-based products. The facility layout is shown in Figure 2.

Concerns about possible pollution impacts due to facility operations date from the late 1970's, when fluoride emissions from the facility affected local plants and grazing cattle. That problem was solved through improved air pollution controls; however, inspections of the facility in the early 1980's by the Caribou County Health Department and the Idaho Hazardous Materials Bureau identified other potential concerns. In 1984-85, Monsanto's own investigation confirmed that their operations had contaminated ground water beneath the plant. Those findings, (in combination with the results of a subsequent site inspection and sampling by EPA), led EPA and IDHW to decide that further Superfund investigations were warranted.

In 1990, EPA placed the Monsanto facility on the National Priorities List (NPL) of sites requiring investigation and, if necessary, cleanup of uncontrolled releases of hazardous substances to the environment. EPA took this action pursuant to its authority under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, also known as "Superfund").

In 1991, EPA and Monsanto negotiated an agreement for the Company to perform the required environmental investigations of the site. Monsanto agreed to perform the Remedial Investigation, Feasibility Study, and any related studies. EPA retained responsibility for preparing Human Health and Ecological Risk Assessments.

The Monsanto Soda Springs Facility is currently in compliance with all appropriate environmental laws. Because of its implementation of worker safety programs and compliance with Occupational Safety and Health Administration (OSHA) regulations, the facility has been awarded "Star" status by the OSHA.

SITE CHARACTERIZATION SUMMARY

Site characteristics and the nature and extent of contamination are described in detail in the RI report. Building on past investigations and knowledge of facility operations, the investigation sampled for contaminants in soils surrounding the facility, source piles, air, ground water, Soda Creek surface water, and Soda Creek sediments. The following potential sources of contaminated material within the facility were evaluated: the ore, coke and nodule stockpiles; baghouse dust; calcium silicate slag piles; coke and quartzite dust slurry pond; nodule fines pond; non-contact cooling water effluent; treater dust stockpiles; underflow solid piles; unpaved haul roads; and air emissions.

Contaminants present in soils surrounding the facility and stockpiles within the facility could potentially pose adverse health effects if workers and/or nearby residents were exposed to them. The contaminants of potential concern in soils and source piles are: arsenic, beryllium, cadmium, vanadium, and several radionuclides (lead-²¹⁰, radium-²²⁶, thorium-²³⁰, and uranium-²³⁸).

Figure 1

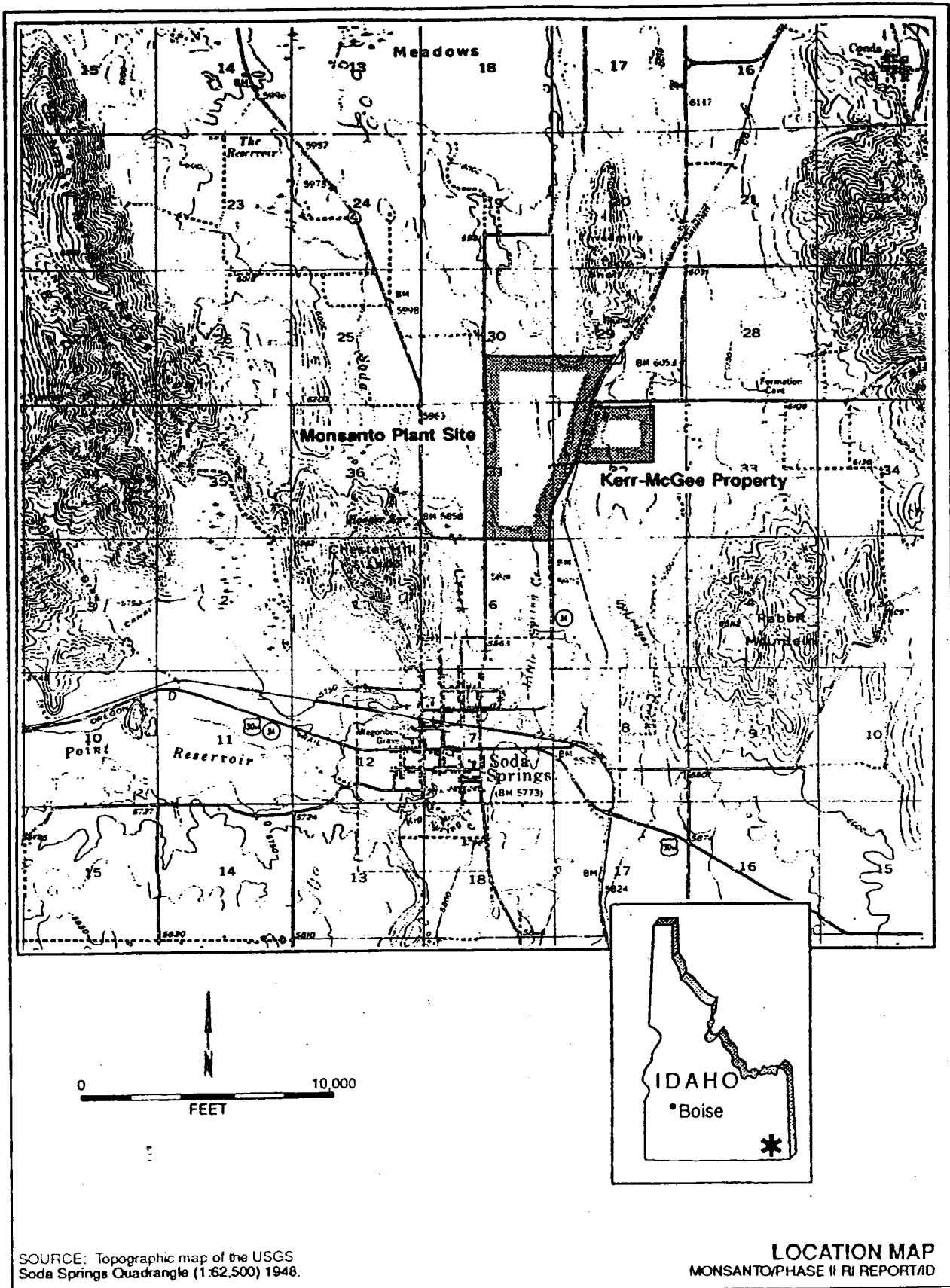
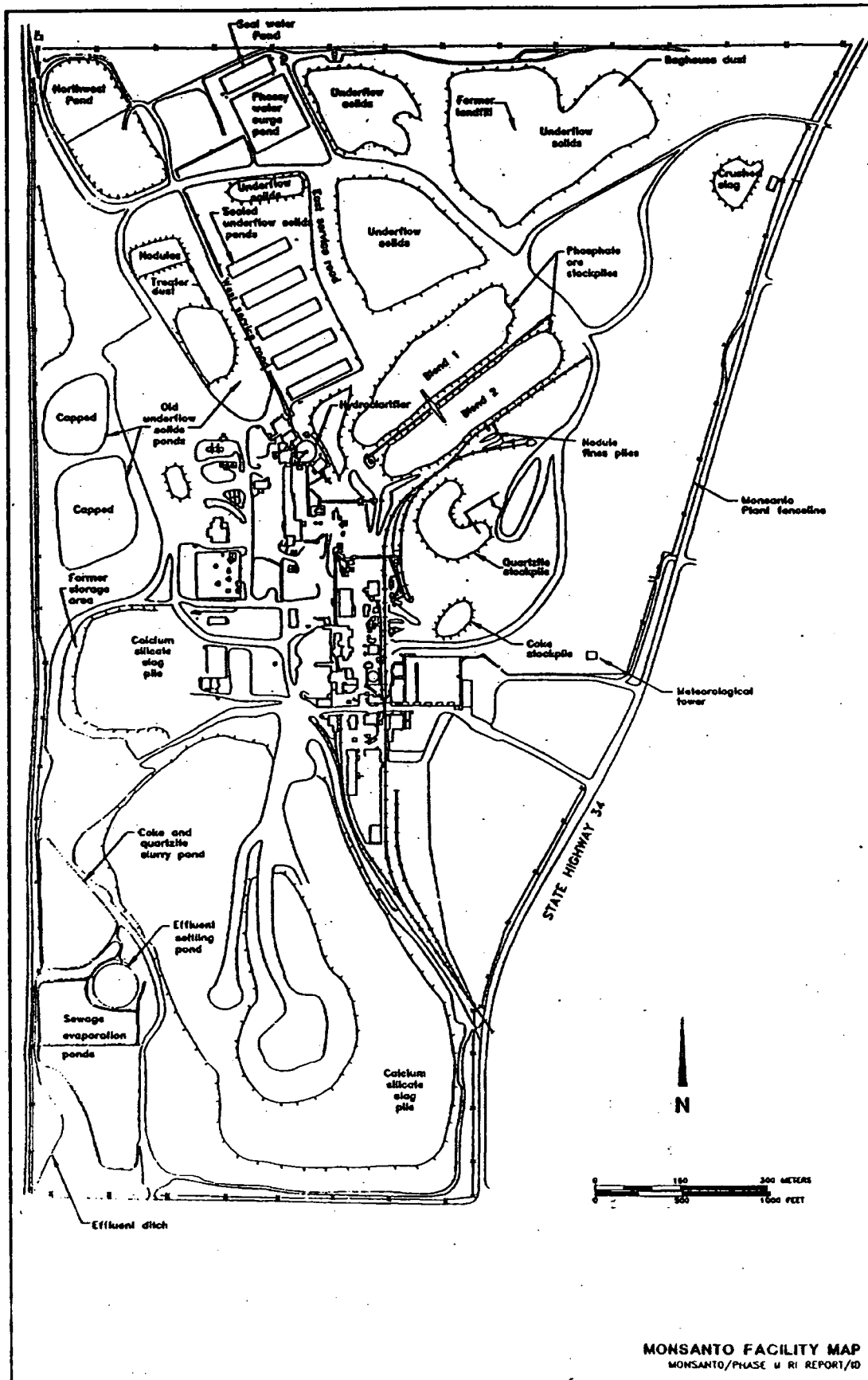


Figure 2



Dust and air emissions from the facility have been and (to a lesser extent) continue to be a source of the contaminants in surrounding soils. Concentrations in the air are below levels thought to pose a risk from inhalation, so the air pathway was eliminated from consideration, except as a source of soil contamination.

In ground water, the following contaminants were detected at concentrations above Federal or State Drinking Water Standards (referred to as Maximum Contaminant Levels, or MCLs): cadmium, fluoride, nitrate, selenium, molybdenum, and manganese. The contaminants were found beneath the facility and to the south and southwest of the plant. Because the main sources of contaminant releases have been eliminated or controlled over the past decade, the RI estimates that ground water will recover and achieve Drinking Water Standards in 5-30 years, depending on the specific contaminant (some contaminants move at different rates and will persist in the environment longer than others).

No elevated contaminant levels were identified in Soda Creek sediments or surface water, although somewhat high levels of cadmium were found in sediments. Monsanto uses ground water from beneath the site for cooling purposes and then discharges it through a ditch to Soda Creek. Since that ground water is contaminated, the discharge should be monitored to ensure that it does not cause contaminant levels to increase and become a problem.

In summary, soils immediately surrounding the facility and ground water beneath it and to the south-southwest contain site-related contaminants in excess of naturally occurring background levels (see Figure 3 next page). City of Soda Springs drinking water supplies are not and should never be affected by the contaminated ground water, which is currently used only by Monsanto, to our knowledge. No residences are currently located within contaminated areas around the facility. The affected areas include privately owned pasture land, crop set aside lands and industrial property adjacent to the Monsanto plant.

HUMAN HEALTH RISK ASSESSMENT

EPA assessed potential risks to human health and the environment posed by radionuclides and metals found at the site. Risks were evaluated for several possible exposures including, for example, ingestion and inhalation of contaminated soil, ingestion of contaminated ground water, and impacts to plants and animals.

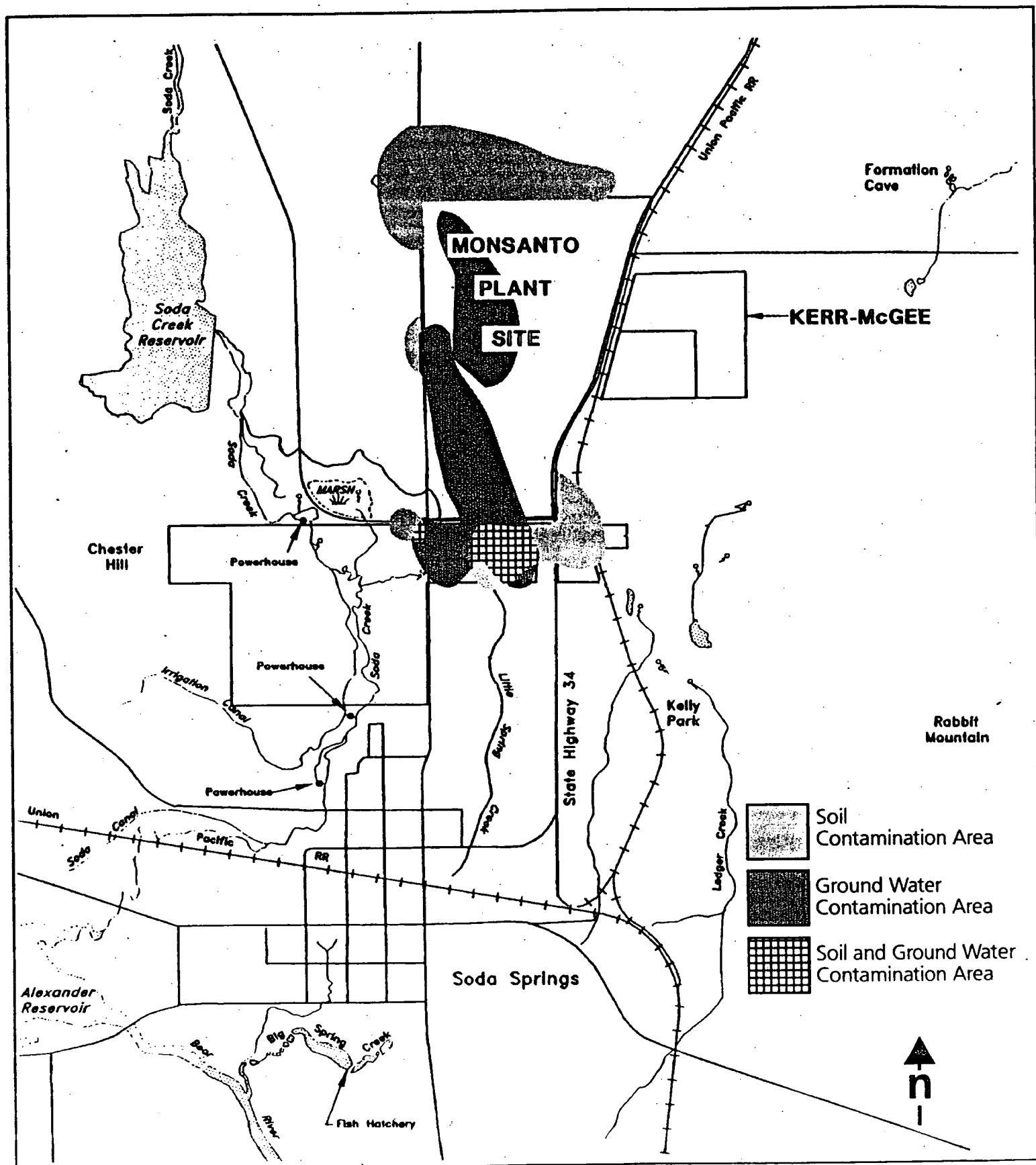
Using local land use information and EPA guidance, the following risk scenarios were evaluated:

- current and future occupational exposure to contamination within the facility (future residential use of the facility was considered unlikely and was not evaluated);
- current and future residential exposure to contamination in soils and ground water to the south of the facility;
- current and future residential exposure to contamination in soils to the north of the facility (ground water to the north is unaffected).

Superfund law defines an acceptable range of human health risk from hazardous contamination as a 1-in-10,000 to 1-in-1,000,000 lifetime risk of cancer. This means that if a group of 10,000 to 1,000,000 people were exposed to a potential cancer causing situation over a 70 year lifetime, just one additional person would be expected to develop cancer beyond those expected from other causes. Risk above this range from contamination at a site (i.e., more than a 1 in 10,000 risk of cancer) typically requires some type of cleanup or preventative action.

The most significant human health risks identified in these scenarios at Monsanto were from potential human exposure to radionuclide contamination in soils around the plant, and to contaminated groundwater. No significant non-cancer risks were identified. The following table on page 7 summarizes the risk results for each exposure scenario:

Figure 3



Approximate Areas of Soil and Groundwater Contamination Above Background

Note: Soils around the facility are not more contaminated than soils and sources within the facility; rather, the assumption of residential use (people spend more time there on a given day) results in a higher risk estimate. The following summarizes the most significant risk results for each exposure scenario used:

Exposure Scenario	Estimated Excess Lifetime Cancer Risk
Current Occupational	Metals risks ranged from 1-in-1,000,000 (for treater dusts) to 3-in-100,000 (underflow solids); Radionuclide risks ranged from 7-in-100,000 (treater dusts) to 5-in-10,000 (slag)
Future Occupational	Metal risks ranged from 2-in-1,000,000 (treater dusts) to 5-in-100,000; Radionuclide risks were 1-in-1,000 at all areas except Nodules and slag (2-in-1,000);
Current Residential	Ingestion risks were below background for metals at all areas except to the South (8-in-1,000,000); Ingestion and external radiation risks were below background for radionuclides at all areas. Inhalation risks for radionuclides ranged from 8-in-10,000,000 to 8-in-1,000,000;
Future Residential	Ingestion risks for metals ranged from 4-in-1,000,000 to 1-in-10,000. Inhalation risks for metals ranged from 1-in-1,000,000 to 1-in-10,000; Ingestion and external radiation risks for radionuclides ranged from below background to the South to 2-in-1,000 for soils to the North.

Monsanto Company's Risk Assessment

To assist in the risk management process, Monsanto did their own form of risk assessment using methods and assumptions which differed from EPA's. Their assessment focussed on risks associated with Radium-226 and attempted to quantify the uncertainties in EPA's risk assessment. It concluded that the likelihood of potential risks is lower than EPA estimated. Monsanto's assessment was considered by EPA and the State in generating this proposed plan.

Ecological Risk Assessment

The RI and EPA's ecological assessment indicated a very low potential for ecological risks or impacts at or around the Monsanto site, based on the levels of contaminants present and lack of evidence that those levels pose significant ecological risks. EPA

and Monsanto agree that no ecological impacts on surrounding areas have been identified and none are expected so long as conditions do not change and concentrations do not increase.

DEVELOPMENT OF CLEANUP OBJECTIVES TO GUIDE THE FEASIBILITY STUDY

Results of the remedial investigation and risk assessments were used to determine what actual or potential problems warranted consideration of cleanup under Superfund and therefore development of cleanup alternatives. Under Superfund, where the risk assessment indicates that a cumulative site risk to an individual (using reasonable maximum exposure assumptions for either current or future land use) exceeds the 1-in-10,000 lifetime excess cancer risk end of the risk range, action under CERCLA is generally warranted at the site.

The risk assessments indicated that potential residential exposure to site-related soil and ground water contaminants outside the facility posed the greatest risks and exceeded EPA's acceptable risk range. The FS developed by Monsanto focussed on alternatives to reduce this specific risk pathways and their sources.

At this site, EPA also identified several areas (air, surface water, and sediments) which did not require action under current conditions because they do not pose significant risks to human health or the environment (i.e. these risks fell within EPA's acceptable risk range). In addition, cleanup alternatives were not developed for alternative future industrial scenarios because the facility is expected to operate for the foreseeable future. Monsanto has just increased production and says it has the reserves to operate the plant for over 30 more years. In the FS, Monsanto made a commitment to operate and, when appropriate, to close the facility in accordance with all applicable Federal and State requirements.

Once action appears necessary, EPA generally sets preliminary cleanup goals to help develop and screen alternatives, using applicable laws (such as Drinking Water Standards) and acceptable risk levels to guide the FS and screen alternatives. EPA directed Monsanto to focus the FS on achievement on a single target cleanup level (1-in-10,000 excess cancer risk) within the acceptable cleanup range defined in the Superfund regulations. The final chapter of the FS was intended to further evaluate how different cleanup levels (more and less protective) would affect the effectiveness, scope, and cost of each alternative. EPA's preferred alternative, described later in this document, includes the cleanup goals being recommended at this time by EPA. Final cleanup goals will be selected after this public comment period.

Consequently, the following Cleanup Objectives guided the Feasibility Study:

- Prevent the release and migration of contaminants of concern from on-site source materials;

- Prevent exposure to contaminants in soils at concentrations above target cleanup levels;
- Prevent exposure to ground water containing contaminants at levels exceeding drinking water standards (MCLs); and
- Restore ground water to its natural state.

SUMMARY OF ALTERNATIVES

The FS evaluated a range of alternatives that could be used to address actual and/or potential threats posed by the site. Nine alternatives were initially compared on the basis of effectiveness, implementability, and cost. Those remedial alternatives that were no more effective but cost significantly more (Alternatives 3, 6, 7, and 9) were eliminated.

The five alternatives described below were evaluated in detail. All include some provision for review of the cleanup plan at least every 5 years to ensure the remedy remains protective. The primary difference between the options is in how the contaminated soils outside the facility would be addressed. The FS evaluated various cleanup levels that would address anywhere from 0 to 1,100 acres of soil, depending on how stringent a cleanup goal was chosen. This proposed plan would address about 350 acres of contaminated soil.

ALTERNATIVE 1: NO FURTHER ACTION

No action would be taken under this alternative. It was included because it is required by EPA's guidance, and establishes a baseline to compare the level of environmental protection provided by other alternatives. The estimated cost of \$40,000 is for reviews of the remedy every five years.

Capital Cost:	\$0
Annual Operation and Maintenance (O&M Cost):	\$0
30-year Cost Estimate:	\$40,000

ALTERNATIVE 2: GROUND WATER MONITORING

Includes annual ground water monitoring to evaluate contaminant concentrations trends until such time as ground water recovers below MCLs, which is projected to take from 5-30 years. Five-year reviews would be conducted to evaluate these trends. No action would be implemented for on-site materials and off-site soils.

Capital Cost: \$ 0
Annual O & M Cost: \$ 79,300
30-Year Cost Estimate: \$1,010,000

Note: This alternative would not satisfy the critical threshold of ensuring protection of public health and the environment as required by CERCLA and was not considered further by EPA.

ALTERNATIVE 4: DUST CONTROL, LAND AND GROUND WATER USE RESTRICTIONS, AND GROUND WATER MONITORING

Includes implementation of dust controls for source materials within the facility; land use and access restrictions for contaminated soils; and, use restrictions and a monitoring program for contaminated ground water.

Dust control measures for the source materials consist of applying a dust suppressant to prevent the release and migration of contaminants from the source piles. Land-use restrictions to prevent residential use of surrounding contaminated soils could include: establishing a property buffer around the facility; placing deed restrictions on the affected property; or, otherwise precluding residential development of the surrounding property in a manner that is legally and practically enforceable.

Restrictions on ground water use could include acquisition of water rights, enacting a water supply ordinance and/or establishing deed restrictions to prevent land owners from installing wells for drinking water use, property buffers, or other options.

Ground water monitoring provisions are the same as Alternative 2. The capital cost below includes the estimated cost of implementing land and ground water use restrictions.

Capital Costs: \$570,105
Annual O & M Cost: \$159,820
30-year Cost Estimate: \$2,570,000

ALTERNATIVE 5: DUST CONTROL, BIOLOGICAL TREATMENT OF SOILS IN PLACE, GROUND WATER USE RESTRICTIONS, AND GROUND WATER MONITORING

Includes in-place biological treatment of contaminated soils outside the facility, plus ground water use and dust controls described in Alternative 4. Temporary land use controls to prevent residential use of affected property would be needed until successful completion of biological treatment.

The biological treatment would consist of growing, harvesting and disposing of plants which are capable of accumulating the soil contaminants (arsenic, beryllium, cadmium and radionuclides) in their roots and leaves. The contaminated plants would then be harvested and disposed of at a permitted landfill. Residential use of the affected areas would be temporarily restricted until treatment was complete. While this alternative looks promising, there is a great deal of uncertainty as to whether it would actually work at this site, since it has only been used elsewhere under different conditions to remove metals from soils. In order to determine whether this would work at the Monsanto site, a Treatability Study costing about \$50,000 would be needed to test the effectiveness of this alternative (that cost is included).

Capital Costs: \$ 305,006
Annual O & M Cost: \$ 671,052 (Years 1-5)
\$ 159,820 (Years 6-29)
30-Year Cost Estimate: \$4,400,000

ALTERNATIVE 8: DUST CONTROL, GROUND WATER USE RESTRICTIONS AND MONITORING, SOIL EXCAVATION AND REUSE

Includes excavation of contaminated soils surrounding the facility for reuse as cover material within the facility, plus the same dust controls, ground water use restrictions and monitoring requirements as Alternatives 4 and 5.

For contaminated soils, the upper six inches of affected soil would be removed and used as cover material for the source material piles within the facility. Excavated areas would be restored by placing clean fill material within them and re-vegetating the area.

Capital Cost: \$13,854,274
Annual O & M Cost: \$ 159,820
30-Year Cost Estimate: \$15,860,000

EVALUATING THE ALTERNATIVES

In accordance with Superfund requirements, EPA uses the nine criteria summarized below to evaluate and compare alternatives. An alternative must meet criteria 1 and 2, known as "threshold criteria," in order to be recommended. Criteria 3 through 7, called "balancing criteria," are evaluated to determine which cleanup method provides the best overall solution. After public comment, EPA may alter its preference on the basis of the last two "modifying" criteria.

This proposed plan presents EPA's evaluation of the alternatives, based on EPA's review of Monsanto's RI/FS.

1. Overall protection of human health and the environment *Determines whether an alternative eliminates, reduces, or controls threats to public health and the environment through institutional controls, engineering controls, or treatment.*

Alternative 5 (bioremediation), if it is proven successful, and Alternative 8 (excavation) best meet this criteria

by providing for cleanup to eliminate exposure to contaminated soils as well as land and ground water use controls to prevent exposure to contaminated ground water and soils. Alternative 4 (land use and ground water restrictions) would also fully satisfy this criterion for areas where reliable controls prohibiting future residential use can be established. Alternatives 1 (no action) and 2 (monitoring only) do not include any actions to satisfy this criterion.

2. Compliance with Applicable or Relevant and Appropriate Requirements (ARARs)

Evaluates whether the alternative meets State and Federal environmental laws, regulations, and other requirements that pertain to the site or, if not, is a waiver justified.

Alternatives 4 (use restrictions), 5 (bioremediation) and 8 (excavation) would satisfy this criterion for soils, and ultimately all alternatives are predicted to achieve ARARs for ground water, based on RI estimates that site ground water should recover in 5-30 years. All except Alternative 1 (No Action) would include monitoring to evaluate when ARARs and cleanup goals are achieved for ground water and soils.

Note: Neither Alternative 1 nor 2 met the above threshold criteria, so they are not discussed further in this plan.

3. Long-term effectiveness and permanence

Considers the ability of an alternative to maintain protection of human health and the environment over time, and the reliability of such protection.

Alternatives 4 (use restrictions), 5 (bioremediation) and 8 (excavation) all satisfy this criterion for ground water protection through soil and ground water use controls and monitoring, assuming the natural attenuation estimates in the RI. For soils, Alternative 5 (bioremediation), if it worked, would best meet this criterion by treatment to remove the

contaminants. Alternative 8 (Excavation) was considered the next most effective and permanent, since contaminated soils would be excavated from surrounding areas and consolidated within the facility, where maintenance of land use and access restrictions can be assumed by Monsanto. Alternatives 5 and 8 would allow for unrestricted use of surrounding soils once completed. Alternative 4 (use restrictions) would also satisfy this criterion for areas where enforceable land-use controls can be established and maintained outside the facility boundary.

4. Reduction of toxicity, mobility, or volume through treatment *Evaluates an alternative's use of treatment to reduce the harmful effects of principle contaminants, their ability to move in the environment, and the amount of residual contamination remaining.*

Alternative 5 is the only alternative which could satisfy this criteria, if it worked under these site conditions. None of the others contain any form of treatment, although some would restrict the mobility of contaminants via dust control measures and/or soil consolidation (alternative 8).

5. Short-term effectiveness

Considers how fast the alternative reaches the cleanup goal and the risks the alternative poses to workers, residents, and the environment during construction or implementation of the alternative.

Alternative 4 (use restrictions) could be implemented most quickly if property owners agree to use restrictions, and should achieve the ground water and soil cleanup goals without additional implementation risks. Alternative 5 (bioremediation) includes soil treatment to hasten achievement of soil cleanup goals but requires a treatability study to see if it would work. Alternative 5 also could pose some short term risks to cleanup workers associated with planting or harvesting the plants used for biological treatment (risks which could be mitigated by use of proper health/safety

procedures). Alternative 8 (excavation) could achieve soil cleanup goals faster than Alternative 5 but could pose greater risks to workers and residents associated with potential exposure during soil excavation; therefore it is considered less effective.

6. Implementability

Considers the technical and administrative feasibility of implementing the alternative, such as relative availability of goods and services. Also, considers if the technology been used successfully on other similar sites.

Alternative 4 (use restrictions) is considered most implementable in the FS because land and ground water use restrictions, while sometimes difficult to implement, could be implemented quickly if property owners agree to such restrictions. Alternatives 8 and 5 were viewed as similar to implement administratively and more difficult to implement technically. Alternatives 4 and 8 have been used successfully on similar sites, while Alternative 5 has only been used under different site conditions, and would require a treatability study.

7. Cost

Includes estimated capital and operation and maintenance costs, as well as present worth costs. Present worth cost is the total cost of an alternative over time in terms of today's dollars.

Alternative 4 is the least costly alternative that meets the threshold protectiveness criteria, at up to \$2.5 million over 30 years (including costs for many actions the company says it will take even if EPA chooses "No Action"). Alternative 5 (bioremediation) was estimated to cost about \$4.5 million and Alternative 8 (excavation) as much as \$15 million.

8. State acceptance

Considers whether the state agrees with EPA'S analyses and recommendations of the RI/FS and the Proposed Plan.

The state of Idaho has worked with EPA to oversee the RI/FS and concurs with this Proposed Plan, subject to consideration of public comments.

9. Community acceptance

This criteria considers community interests and concerns as a factor in selecting a clean up plan. It will be addressed after consideration of comments submitted during the comment period.

Preferred Alternative and Rationale

No single alternative in the FS would be protective and offer an effective balance of all the required criteria. Therefore, EPA's preferred alternative is a combination of elements from several alternatives, as described below. Along with each component is the rationale for its proposal.

For contaminated ground water: Use Restrictions (such as deed restrictions, or a prohibition on drinking water wells in the affected area) to prevent human exposure to ground water until it recovers and achieves MCLs (projected to be 5-30 years). Due to the success of past actions and predicted natural recovery ground water, no further action appears necessary, except annual monitoring of ground water and the plant discharge outfall to confirm the success of past actions, and reviews no less often than every five years to ensure the remedy remains protective and to confirm the eventual achievement of MCLs.

For source piles and materials within the facility: No Further Action, because Monsanto's past cleanup actions, ongoing dust controls, worker health/safety programs, and compliance with federal and state regulations have reduced potential sources of exposure and contaminant release to acceptable levels under current industrial land use. Five-year reviews would be necessary to evaluate land use, compliance status, engineering controls and worker health/safety programs.

For contaminated soils surrounding the facility: Land Use Restrictions to prevent residential exposures.

Soils immediately surrounding the facility are contaminated with radium²²⁶ at levels that could pose significant potential risks in the event residences are built in the most contaminated areas. More limited exposure, such as industrial use, would pose lower risks which are considered acceptable. Therefore, the preferred alternative is land use restrictions prohibiting residential use of contaminated areas where reliable, enforceable restrictions exist or can be established in the near future. Five year reviews, including monitoring of surrounding soils, would be done to confirm that the remedy remains protective and that source control actions (air emission and dust controls) remain effective.

In considering the alternatives, EPA determined that active cleanup would be the most protective remedy, offer the most long-term effectiveness, best address the CERCLA preference for permanent solutions and allow for unrestricted future land use. However, both active cleanup alternatives (Bioremediation @ \$4,500,000 and Excavation @ \$15,800,000) would be significantly more expensive than the Alternative 4 (Land Use Restrictions - up to \$2,500,000). Given this discrepancy in cost, the fact that no one currently resides in the affected areas, uncertainty of risk estimates, and potential disruption of current habitat, the Land Use Restrictions alternative is recommended for soils because it should provide adequate protectiveness and satisfy all applicable or relevant and appropriate requirements for the least cost.

EPA also recommends selection of a contingent remedy for surrounding soils to ensure future protectiveness in any areas where reliable land use controls are not established within a reasonable time after the selection of a cleanup plan. If any contaminated areas remain unrestricted beyond a reasonable time frame (as determined by EPA), the contingent remedy would call for active cleanup of any contaminated soils using Alternative 5 (bioremediation), if that could be shown to work at this site with a treatability study. If the treatability study proved ineffective (or if the areas are very

Your opinions on the recommended plan for the Monsanto Elemental Phosphorus Plant Superfund site are important to EPA. Comments provided by the public are valuable in helping EPA select a final remedy for the site.

[illegible]

Name: _____

Address: _____

City _____

State _____ Zip _____

**Monsanto Elemental Phosphorus Plant Superfund Site
Public Comment Sheet**

Name _____
Address _____
City _____
State _____ Zip _____

Place
Stamp
Here

Tim Brincefield, Project Manager
U.S. EPA Region 10
1200 Sixth Avenue
Seattle, WA 98101

small), the final contingency would be Alternative 8, excavation and disposal. This tiered approach should allow adequate time to get land use controls established where possible while providing protective alternatives for areas where such controls are not in place.

Finally, EPA's preferred alternative for Air, Surface Water, and Soda Creek sediments is No Action, with periodic monitoring and five-year reviews to confirm the success of past source control actions and ensure that chemical concentrations in sediments are not increasing. No action is necessary in these areas because no significant health concerns or environmental impacts were found.

Cost of the Preferred Alternative

The estimated cost of the preferred alternative is \$400,000 for initial capital costs of establishing institutional controls and up to \$150,000/year for dust control, groundwater monitoring, and source/soil monitoring, for a 30-year total of up to \$2,500,000. The cost should be somewhat less than the FS estimate of \$570,000 for capital costs and \$2,570,000 for 30 years because it is based on the cleanup goal proposed below, which would address a smaller area than was used for the FS cost estimate. Note that Monsanto's FS says it will voluntarily perform most, if not all, the actions described in the preferred alternative (and so will incur these costs) even if no action is required by EPA. However, EPA believes this plan is necessary to satisfy CERCLA legal requirements and to ensure the public and the environment are adequately protected.

Cleanup Goals

The Superfund regulations typically recommend that the cleanup goal be established to prevent actual or potential excess cancer risks in excess of a range between 1-in-10,000 and 1-in-1,000,000, or at the relevant clean up standards (such as MCLs for ground water) where such exist.

The recommended cleanup goal for soils is based on preventing exposure to soils containing radium²²⁶ at levels that would pose an excess cancer risk greater than or equal to 3-in-10,000. This cleanup level, while slightly higher than the typical cleanup goal used by EPA, is based on the residential soil cleanup levels proposed in EPA's draft Radiation Protection Guidance, and is consistent with the cleanup goals used at other sites for radionuclide cleanups in potential residential areas. Cleanup to more stringent levels within the risk range normally used by EPA was evaluated in the FS, however, it did not appear necessary, feasible, or cost-effective.

The proposed cleanup goals for ground water are Maximum Contaminant Levels under the Safe Drinking Water Act.

THE NEXT STEP

EPA will consider public comments received during the public comment period before choosing a final cleanup action for the site. EPA will then prepare and publish a response to those comments; the final cleanup action will be described in a document called a Record of Decision (ROD).

ADDITIONAL INFORMATION

If you are interested in learning more about the Monsanto site or the Superfund process, EPA encourages you to review documents at the Monsanto Site Information Repository. The Repository contains copies of the Work Plans, Remedial Investigation Report, Feasibility Study, Risk Assessment, the Community Relations Plan, and other materials related to the site. The Repository is maintained at:

Soda Springs Public Library
149 South Main Street
Soda Springs

An Administrative Record file, containing information upon which the selection of the cleanup remedy will be based, has also been established at both the information repository and at EPA's Regional office in Seattle.

Questions?

For further information on the Monsanto site, please contact:

Mark Masarik, EPA Boise Operations Office
(208) 334-9506

or

Tim Brincefield, Project Manager
(206) 553-2100 or 1-800-424-4372, ext. 2100

or

Misha Vakoc, Community Relations Coordinator
(206) 553-8578

For those with impaired hearing or speech, please contact EPA's telecommunications device for the hearing impaired (TDD) at (206) 553-1698. To ensure effective communications with everyone, additional services can be made available to persons with disabilities by contacting one of the numbers listed above.

Finally, if you have tried to understand or participate in this process and feel that the EPA Region 10 Superfund Program has not heard, listened to, or responded adequately to your concerns, you may wish to call and raise your concern with the independent Ombudsman for Region 10, Ms. Michelle Pirzadeh, at (206) 553-1272.



Region 10 ECO-081)
1200 Sixth Avenue
Seattle WA 98101